

ABSTRACT

The present invention relates to a novel drug discovery
5 system for generating and screening molecular diversity. The
system provides methods for mixing and cloning genetic
materials from a plurality of species of organisms in
combinatorial gene expression libraries to generate novel
10 metabolic pathways and classes of compounds. The system also
provides mobilizable combinatorial gene expression libraries
that can be transferred from one species of host organism to
another for expression. Also provided are specialized
15 cloning vectors for making mobilizable gene expression
libraries. The system also involves methods for pre-
screening or identifying for host organisms containing a
20 library that are capable of generating such novel pathways
and compounds.

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